

# 3FM2.3 (6V2.3Ah)



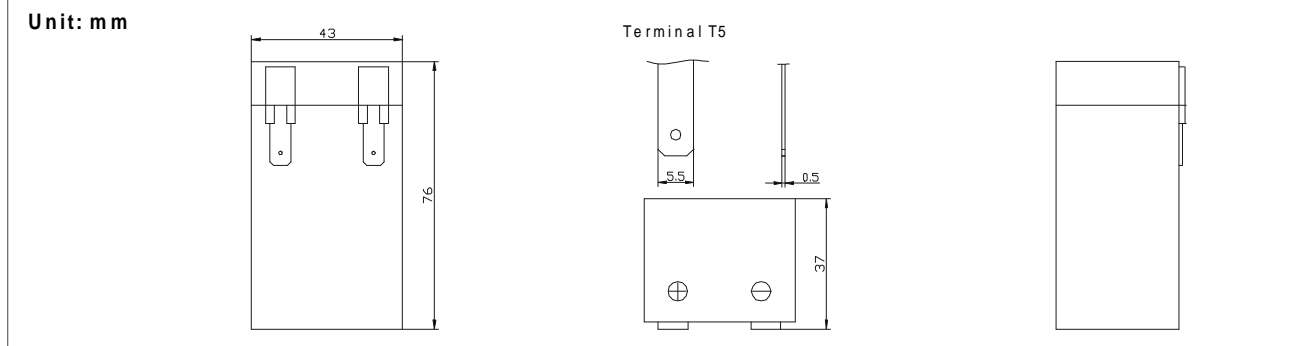
3FM2.3 is a general purpose battery with 5 years life in standby service, or more than 260 cycles at 100% D.O.D by cyclic use. As with all QiangJun batteries, all FM models are rechargeable,

## Specification

Cells Per Unit	3
Voltage Per Unit	6
Capacity	2.3Ah@ 20hr-rate to 1.75V per cell @ 25°C
Weight Max. Discharge C	Approx. 0.34 Kg
urrent Internal Resistan	23 A (5 sec)
ce	Approx. 50 m
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
Normal Operating Temperature Range	25°C±5°C
Float charging Voltage	6.8 to 6.9 VDC/unit Average at 25°C
Recommended Maximum Charging Current Limit	0.69 A
Equalization and Cycle Service	7.25 to 7.45 VDC/unit Average at 25°C
Self Discharge	QiangJun batteries can be stored for more than 6 months at 25°C. Please charge batteries before using. For higher temperature, the time interval will be shorter.
Terminal	Terminal T5
Container Material	A.B.S. (UL94-HB) Flammability resistance of UL94-V2 can be available upon request.



## Dimensions



### Constant Current Discharge Characteristics Unit: A(25°C)

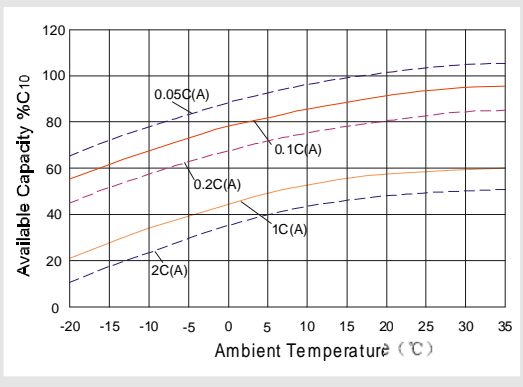
F.V/Time	5 MIN	10 MIN	15 MIN		1 HR	2 HR	3 HR	4 HR	5 HR	8 HR	10 HR	20 HR
1.60V	9.55	6.38	4.91	2.70	1.60	0.96	0.59	0.48	0.39	0.29	0.23	0.13
1.67V	8.94	5.95	4.61	2.66	1.59	0.95	0.59	0.48	0.39	0.29	0.22	0.12
1.70V	8.45	5.77	4.51	2.64	1.58	0.95	0.58	0.48	0.38	0.29	0.22	0.12
1.75V	7.64	5.40	4.27	2.58	1.55	0.94	0.58	0.48	0.38	0.29	0.22	0.12
1.80V	6.82	5.03	4.03	2.51	1.53	0.92	0.58	0.47	0.38	0.28	0.21	0.11
1.85V	6.01	4.66	3.80	2.45	1.51	0.91	0.57	0.47	0.38	0.28	0.21	0.11

### Constant Power Discharge Characteristics Unit: W(25°C)

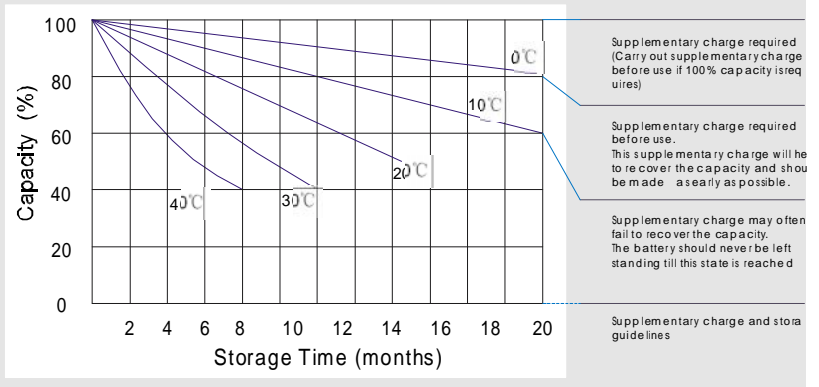
F.V/Time	5 MIN	10 MIN	15 MIN	30 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	8 HR	10 HR	20 HR
1.60V	18.40	11.96	9.72	5.40	3.19	1.91	1.18	0.96	0.91	0.57	0.45	0.25
1.67V	17.25	11.50	9.22	5.31	3.18	1.90	1.17	0.96	0.91	0.57	0.44	0.24
1.70V	16.91	11.16	9.01	5.27	3.17	1.90	1.17	0.96	0.90	0.57	0.44	0.24
1.75V	15.28	10.70	8.54	5.15	3.12	1.87	1.16	0.95	0.90	0.57	0.43	0.23
1.80V	13.65	10.01	8.07	5.03	3.07	1.84	1.15	0.95	0.90	0.56	0.43	0.22
1.85V	12.02	9.32	7.60	4.90	3.02	1.81	1.15	0.94	0.90	0.56	0.42	0.21

All mentioned values are average values.

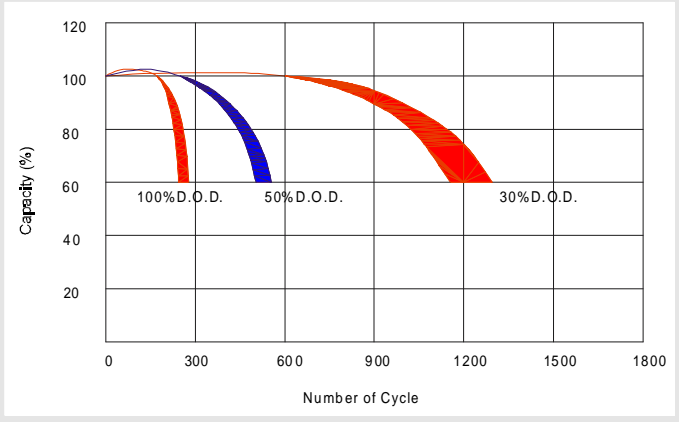
### Temperature effect curve



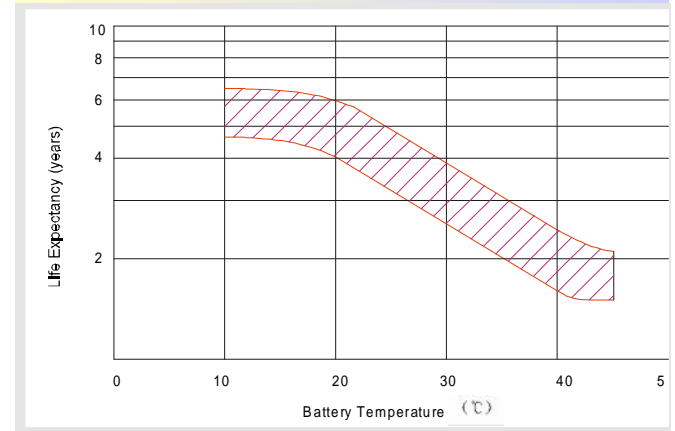
### Storage characteristic



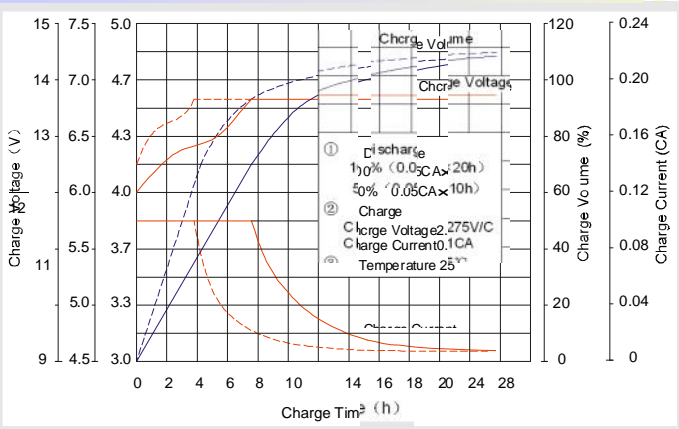
### Life characteristics of cyclic use



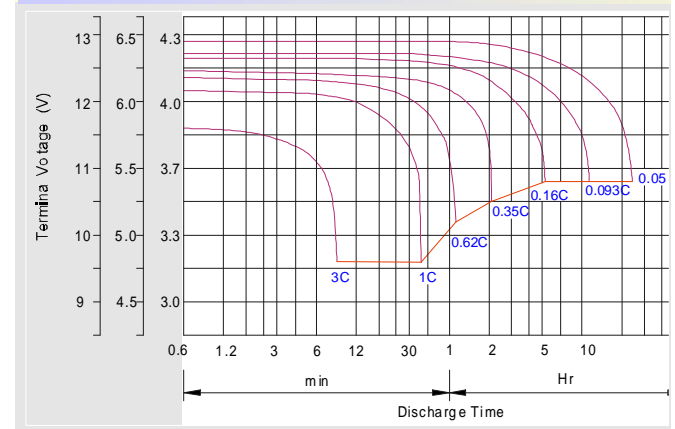
### Effect of Temperature on long term float life



### Charge characteristic curve for standby use



### Discharge characteristic curve



### Charging Procedures

Application	Charge Voltage (V)			Max. Charge Current
	Temperature	Set point	Allowable range	
Cycle Use	25°C	14.7	14.4~15.0	0.3C
Standby	25°C	13.7	13.6~13.8	0.3C

### Discharge Current VS. Discharge Volt

Final Discharge Voltage V/cell	1.75V	1.70V	1.60V
Discharge Current (A)	(A) ≤ 0.2C	0.2C < (A) < 1.	(A) ≥ 1.

Charge the batteries at least once every six months, if they are stored at 25°C.

### Charging Method:

Constant Voltage	7.25~7.45V, 5~11h, Max. Current 0.1CA
Constant Current	0.1CA x 5h

### Charging Procedures(6V series)

Application	Charge Voltage (V)			Max. Charge Current
	Temperature	Set point	Allowable range	
Cycle Use	25°C	7.35	7.25~7.45	0.3C
Standby	25°C	6.85	6.8~6.9	0.3C